

# Communicable Disease Report

Hawai'i Department of Health  
Communicable Disease Division

July/August 2000

## Summary of Communicable Disease Outbreaks, Hawai'i – 1999

### Mandatory Disease Reporting

Section 325-2, Hawai'i Revised Statutes (HRS) mandates that physicians, laboratory directors, and health care professionals report the incidence or suspected incidence of designated diseases to the Department of Health (DOH). The 58 designated diseases or conditions and reporting requirements are contained in chapter 11-156, Hawaii Administrative Rules.

Every person, health care provider, and medical facility, is required by Sec. 321-311.5, HRS, to provide demographic and clinical information when requested by an authorized representative of the DOH who is conducting an epidemiologic investigation of a disease deemed by the department to threaten the public health. This law specifically exempts anyone who provides this information from civil and criminal liability for providing the requested information.

The law provides criminal and administrative sanctions for failure to report diseases and provide requested information. Failure to report a notifiable disease is a misdemeanor, and administrative penalties of up to \$1,000 per day may be imposed for refusal to provide

required information for an investigation.

### 1998 Summary

The most frequently reported notifiable infectious diseases in the United States in 1998 (in descending order) were chlamydia, gonorrhea, chickenpox, AIDS, salmonellosis, syphilis (all stages), shigellosis, hepatitis A, tuberculosis, and Lyme disease<sup>1</sup>. The CDC has not yet released U.S. statistics for 1999 data. By comparison, in 1999, the most frequently reported infectious diseases reported to the DOH (in descending order) were chlamydia, campylobacteriosis, gonorrhea, salmonellosis, tuberculosis, giardiasis, AIDS, enterococcus (vancomycin-resistant species), pneumococcal disease, and leptospirosis.

### 1999 Summary

The DOH Epidemiology Branch is responsible for the detection, investigation, prevention, and control of communicable diseases in the State of Hawai'i. In 1999, 65 infectious disease outbreaks affecting 574 case patients were investigated (Table 1). The most significant outbreaks during 1999 included the re-emergence of a previous *Salmonella enteritidis* (SE) community

outbreak associated with shell eggs produced at a local egg farm; a confirmed *Campylobacter jejuni* enteritis outbreak associated with a catered birthday party on O'ahu; a confirmed viral gastroenteritis at a long term care facility on O'ahu; a community outbreak of pertussis on the island of Hawai'i; and an outbreak of gastroenteritis implicating Spam musubi in a catered company picnic. Summaries of these outbreaks are described below. A brief summary of the influenza outbreaks investigated in 1999 is also included.

### Food-Borne Outbreaks

The DOH investigated 345 complaints of food-borne illness in 1999. Food complaints comprised approximately 58% of all investigations. There were 53 food-borne outbreaks detected. The etiology was confirmed in 30 (57%) of the outbreaks and was probable (or suspect) in 23 (43%). These investigations resulted in the identification of 44 fish poisoning outbreaks (56 confirmed cases and 28 probable cases), and 10 outbreaks of other types of gastroenteritis including cases due to *Salmonella enteritidis*, *Campylobacter jejuni*, and

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Norwalk-like calicivirus. There were 23 ciguatera, and 21 scombroid fish poisoning incidents. No hallucinogenic fish poisoning incidents were reported (Table 2).

## Community-wide outbreak of *Salmonella enteritidis* related to local shell eggs, Oahu (February – July, 1999)

### Background

*Salmonella* serotype *enteritidis* (SE) cases in Hawai'i increased from 29 cases in 1995 to 82 cases in 1996 (figure 1). Phage typing of selected isolates by CDC indicated the presence of SE phage type 4 in Hawai'i. In 1997, a case-control study was initiated by the DOH Epidemiology Branch to identify risk factors and possible sources for this increase. Preliminary analysis of the 1998 and 1999 cases revealed that the risk of infection was associated with direct or indirect exposure to eggs produced by a local egg farm on O'ahu.

Subsequent investigation during 1998, which included hen-house environmental sampling, concluded that cases of *Salmonella enteritidis* infections were more likely to have consumed eggs either bought at the egg farm or eggs and egg containing food items from commercial establishments that utilized this farm's eggs.

## Three clusters of *Salmonella enteritidis* related to an O'ahu restaurant (June, 1999)

On June 1, 1999 the DOH was notified of gastroenteritis in a cohort of persons (School A) who attended a school outing at a local tourist attraction on O'ahu. It was first thought that the cases were associated with a dinner meal consumed while on the outing. However, this meal was eliminated as a possible source when no illness was found in all other groups who had eaten this meal. Further investigation of these illnesses revealed that a large proportion had purchased their lunch meals (meat juhn containing egg battered sliced beef) for the outing from a neighborhood restaurant. Two additional unrelated parties (parties A & B) also reported similar illness after consuming this food item purchased on the same date as the school outing. *Salmonella enteritidis* infection was confirmed among cases in all three clusters.

Investigation by DOH sanitarians of the restaurant identified a practice of pooling shell eggs for use in various dishes. Pooled eggs were held for extensive periods at room temperature. Remainders were returned to the refrigerator at the end of the day and additional eggs were added on subsequent days. By pooling the eggs in this manner, it was very likely for even one contaminated egg to result in a quantity of contaminated product over an extended period of time.

clusters identified in this investigation, the DOH recommended destruction of all eggs and layers from the contaminated hen houses at the egg farm. The farm management complied with this recommendation and the occurrence of cases abruptly ceased in early August. Only one additional case of SE occurred during the remainder of 1999 (Figure 2). The DOH case control study of *S. enteritidis* infection is ongoing.

## Probable Food-borne Outbreak of Gastroenteritis Associated with a Company Picnic, Honolulu (July 17, 1999)

### Summary

A probable outbreak of gastroenteritis occurred on July 17, 1999, following a company picnic at Keehi Lagoon attended by approximately 250 people. Of the 232 persons interviewed, 55 met the case definition for illness related to the meal served at the event. The onset of symptoms occurred within 1-18 hours after the meal, suggesting a common source exposure. Statistical analysis of the food and beverage items served at the picnic implicated the Spam musubi as the possible vehicle for causing illness.


### Background

On July 23, 1999, the DOH received a report of illness in approximately 75 of 250 persons who attended a company picnic on Saturday July 17, 1999 at Keehi Lagoon beach park. The catered food was delivered approximately at 11 a.m. and guests began eating from the buffet-style meal between 11:30 a. m. and 12 noon. The food consisted of maki sushi, cone sushi, oshi sushi, macaroni / potato salad, fresh fruit salad, crispy won tons, spring rolls, sweet and sour sauce, shoyu mustard sauce, fish tempura, sweet potato tempura, vegetable tempura, noodles, garlic chicken, teriyaki meatballs, Spam musubi, melona bars, Creamsicles, shaved-ice and canned / bottled beverages.

On May 19, 1999, the DOH recommended the embargo of eggs from 3 hen houses that tested positive for SE. Laboratory and epidemiologic evidence of the three clusters of SE cases were linked to the egg farm as the source of eggs used to prepare the meat juhn. On July 9, 1999, after the identification of the

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Communicable Disease Division	586-4580
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## Methods

On July 23, 1999, Epidemiology Branch obtained a partial list of the ill persons and the buffet-style menu served at the picnic. A questionnaire was developed and administered by telephone to persons who attended the picnic. The complete list of attendees was obtained on July 26, 1999. Because of the large number of attendees and the inability to reach all attendees by phone, on July 28, 1999, the Epidemiology Branch asked the president of the Company Employee Association to distribute the questionnaires to all persons attending the picnic. The report of illness was referred to the Sanitation Branch, Environmental Health Services Division for follow-up.

No clinical specimens were obtained from ill persons and food specimens and environmental samples were not available for laboratory analysis.

## Results

Completed questionnaires were returned for 232 (215 persons who attended the picnic, 16 persons who did not attend the picnic, and 1 person who answered "not sure" to the question about attendance at the picnic). Of the 232 returned questionnaires, 90 were employees, 140 were guests, and 2 were of "unknown" status.

For this investigation, a case was defined as any person who attended the picnic on Saturday, July 17, 1999, and subsequently suffered acute onset of diarrhea and/or vomiting within 24 hours. Seventy-four people reported being ill with 55 persons meeting the case definition (attack rate:  $55/215 = 25.6\%$ ). The remaining 19 (9%) persons reporting illness that did not meet case definition were excluded from the analysis.

Ill persons most frequently reported symptoms of diarrhea (80%), vomiting (76%), and nausea (71%). Onset of illness ranged from 1 hour to 18 hours after consumption of the meal with a mean incubation of 6 hours. Eight people sought medical attention: 2 were seen at a local hospital emergency room; 5 saw their

physician during an office visit; and 1 obtained a phone consultation with a physician.

## Discussion

Although the characteristics of the illnesses were compatible with a food-borne outbreak, an etiologic agent was not identified. Because nearly a week had passed from the time of the picnic to the time the illnesses were reported to the Epidemiology Branch, food specimens were no longer available for laboratory analysis. In addition, no clinical specimens were obtained from any ill persons.

Epidemiological data implicated Spam musubi served at the company picnic as the vehicle in 55 cases of gastroenteritis.

## Recommendations

The Epidemiology Branch emphasized the need for timely reporting, since there was a six-day delay between the outbreak and the date on which the DOH was notified.

### **Outbreak of *Campylobacter jejuni* Enteritis Associated with a Catered Birthday Party, Honolulu (November 13, 1999)**

## Introduction

On November 18, 1999, the DOH in Honolulu was notified of a cluster of *Campylobacter jejuni* infections that occurred between November 18–20, 1999, among persons who had eaten dinner at a first birthday party on November 13, 1999. The results indicated that the *C. jejuni* infections were most likely acquired from eating at the party.

## Methods

The list of attendees and their telephone numbers were obtained from the host of the party. A questionnaire was developed and administered by telephone to all 95 attendees. A case was defined as illness in a person who had eaten dinner or left-overs from the party on November 13, 1999, and had onset of diarrhea (i.e., 3 or more loose stools during a 24-hour period) or vomiting during November 14–18, 1999.

## Results and Discussion

Of 95 persons available for interviews who had eaten dinner at the party on November 13, 1999, 33 (34%) persons had an illness that met the case definition. The median age of patients was 22 years (range 1–79); 45 were male and 50 were female.

All case patients reported diarrhea; vomiting occurred in 32 (96%); abdominal cramping in 28 (84%); and fever in 16 (48%). The median incubation period was 3 days (range: 1–5 days). There were no hospitalizations reported.

Stool specimens were collected from 9 patients, which yielded 9 isolates, all of which were identified as *C. jejuni*. Two food items were tested; kalua pig (roasted pork), and chinese chicken salad. Bacterial pathogens were not recovered from either item. Six of the nine *Campylobacter* isolates were forwarded to Hawai'i State Laboratories Division, Environmental Microbiology Section for Pulsed Field Gel Electrophoresis (PFGE). The PFGE patterns were identical among the isolates, suggesting a common source exposure.

All of the ill persons reported eating various food items. Final analysis of the questionnaires did not show statistical significance for any single food item.

The DOH environmental investigation indicated that the caterer was in compliance with all procedures and protocols for proper food preparation and met DOH standards.

### **VACCINE PREVENTABLE DISEASES**

The Epidemiology Branch received and investigated reports of measles, mumps, and pertussis in 1999. There was one community outbreak of pertussis detected and investigated in August 1999 on the island of Hawai'i. The other vaccine preventable diseases occurred sporadically. The pertussis outbreak investigation is discussed.

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## **Community Outbreak of *Bordetella Pertussis* in West Hawai'i (January, 1999)**

On February 11, 1999, a laboratory confirmed case of *Bordetella pertussis* (whooping cough) was reported by a west Hawai'i pediatrician to the Hawai'i District Health Office. The case was a 1-month-old female who was hospitalized in critical condition on O'ahu.

The patient's symptoms began on February 4, 1999. Symptoms consisted of paroxysmal coughing, whoop, apnea, cyanosis and post-tussive vomiting. Investigation of this case subsequently identified 5 additional cases through retrospective investigation of families closely associated to the reported case's family. These cases ranged in age from 10 months to 19 years old. The first case identified in this community was a 13-year old male with onset on January 19, 1999. He was an immigrant with an unknown vaccination history. The remaining four cases were adequately immunized for their age. Two additional cases were reported: a 13-year old male with onset on February 24, 1999, and his 4-year old sister with onset on March 8, 1999. These two cases had no contact with the families in this community, but exposure could have occurred after riding in the same school bus with symptomatic individuals previously identified as cases.

A total of eight (8) cases were reported in this outbreak in family members in the community in West Hawai'i. Two cases were culture confirmed; two had positive direct fluorescent antibody (DFA) tests with no cultures performed; and four others were epidemiologically linked.

The DOH evaluated 116 contacts of the eight cases. Medication was provided to 44 exposed contacts that had no health insurance.

## **INFLUENZA AND RESPIRATORY ILLNESSES**

In 1999, the DOH documented a total of

311 laboratory confirmed cases of influenza virus infections. Influenza type A was confirmed in 213 cases, and 98 cases were classified as influenza type B. Of these results, 21 cases were typed as Influenza A/Sydney/05/97 (H3N2), and 5 cases were typed as Influenza B/Beijing/184/93. A total of 10 influenza outbreaks were investigated in 1999 involving 248 case patients (Table 3). The DOH also received 674 reports of influenza-like illness without laboratory confirmation. The other virus types (124 cases) isolated throughout the year appear in Figure 5.

### **Summary of Three Confirmed Outbreaks of Influenza, O'ahu (July – August, 1999)**

#### **1. Outbreak of Influenza A in a Nursing Home, East O'ahu, July 4, 1999**

A report of influenza-like illness (ILI) was reported to the Epidemiology Branch on July 4 by the infection control coordinator at a 136-bed Windward O'ahu Nursing Home. A total of 22 residents ranging from 42-99 years old had onset of fever and upper respiratory illness within a 4-day period beginning on July 3. Eight of ten (80%) clinical specimens (nasal and/or throat swabs) collected from symptomatic individuals tested positive for influenza A by fluorescent antibody (FA). Two of the eight isolates were further identified as A/Sydney/05/97-like (H3N2) strain. Medical documentation indicated that 13 of 22 (59%) ill residents had been vaccinated against influenza in October 1998. Amantadine prophylaxis was administered to all residents on July 5. No deaths occurred during the outbreak.

#### **2. Outbreak of Influenza A in a Nursing Home, Central O'ahu (August 10, 1999)**

An outbreak of influenza-like illness (ILI) among 37 residents at a central O'ahu nursing home on August 10 was reported to the DOH. The 288-bed skilled nursing facility reported that an increase of ILI among residents was first noted on August 5, 1999. Predominant

symptoms included coughing, sore throat and fever. Throat swabs were collected from 9 patients for virus isolation. Three specimens yielded positive results for Influenza A by FA. The facility instituted cohorting of ill patients and droplet precautions as a control measure. On August 3 a limited supply of the 1998/1999 influenza vaccine was obtained and was offered to staff on a voluntary basis. The residents were due to receive the 1999/2000 vaccine as soon as it became available. On August 12, the facility's physician recommended amantadine prophylaxis for the residents.

The peak of illness activity occurred during a five-day period between August 6 – 10 during which 33 cases of ILI were reported. By August 17, a total of 47 residents ranging from ages 65-104 years were reported to have experienced influenza-like symptoms. One death due to pneumonia was documented during the outbreak period.

#### **3. Outbreak of Influenza A at an East O'ahu Hospital (August 24, 1999)**

On August 24, 1999, the director of nursing of a 179-bed long-term care hospital located in Honolulu reported that 6 residents in one of five wards were ill with upper respiratory symptoms. This facility experienced an outbreak of Influenza A in residents and staff earlier in the year (February, 1999). Swabs were obtained on acutely ill individuals and active surveillance was initiated to promptly identify additional cases.

Nineteen (19) residents ranging in ages between 36 – 92 years were reported ill during the outbreak period. Thirteen (13) of the 19 (68%) ill residents had received the 1998/1999 influenza vaccine during October and November 1998. None of the staff reported similar illness. Fourteen of 19 (74%) had symptoms of fever with cough or sore throat. Eleven of 14 nasal or throat swabs obtained from ill residents were positive for influenza A by FA. Anti-viral medication was provided to the ill persons as well as to residents

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and staff in the ward. Two residents died during the outbreak period, including one that was confirmed with influenza A infection.

More information on influenza surveillance and influenza in Hawai'i can be found at the DOH website: [http://www.state.hi.us/doh/resource/comm\\_dis/flu/index.html](http://www.state.hi.us/doh/resource/comm_dis/flu/index.html)

## OTHER DISEASE OUTBREAKS

### **Viral Gastroenteritis in a Long Term Care Facility, Honolulu (March 24, 1999)**

Only one documented outbreak of confirmed viral gastroenteritis in a care home was reported in Hawai'i in 1999. During 1998, 2 rotavirus outbreaks were reported in long-term care homes (1 on O'ahu and 1 in Hawai'i). The following report documents the O'ahu outbreak which occurred beginning on March 21, 1999 and was reported to the Epidemiology Branch on March 24, 1999.

The infection control coordinator of the facility reported gastrointestinal illness in 14 residents beginning the weekend of March 21, 1999. The outbreak continued over the weekend, and was reported on March 24, 1999 to the Epidemiology Branch.

Stool specimens on several of the residents had already been collected for testing in the hospital laboratory for bacterial pathogens.

Seventeen (17) cases were reported to have diarrhea, 11 vomiting, and 4 persons reported a temperature of  $> 99.0^{\circ}$  F. Specimens were collected on case patients from March 24, 1999 – March 28, 1999. Only 3 staff reported symptoms, and no specimens were submitted because their onsets were prior to the report date. Small round-structured virus (SRSV), a calicivirus, commonly called Norwalk-like virus, were identified to be the cause of this outbreak after stool samples from the outbreak were forwarded to CDC. No other staff reported illness dur-

ing the outbreak period. No deaths occurred as a result of this outbreak.

Admissions were not permitted on any of the affected floors until one incubation period of the illness had passed without new cases occurring. Universal precautions were initiated for all affected floors in the facility, and ill staff members were removed from patient care duties until they recovered. Strict hygienic measures were impressed on all staff for use in patient care and other employee duties.

Following implementation of the control measures, no additional cases were observed.

For more information or for disease reporting to the DOH, please call the Epidemiology Branch, Investigation Section, **Officer of the Day** during State Office hours at (808) 586-4586 in Honolulu, (808) 933-0912 on the island of Hawai'i; (808) 984-8213 on Maui or (808) 241-3563 on Kaua'i. For after hours disease reporting, please call the state operator at (808) 247-2191 on O'ahu, or (800) 479-8092 on the neighbor islands.

### REFERENCE:

<sup>1</sup> Centers for Disease Control and Prevention. Summary of notifiable diseases, United States, 1998. MMWR. 1998; 47(53):77.

*Submitted by Myra Ching-Lee, M.P.H., Epidemiological Specialist, Investigation Section, Epidemiology Branch.*

Individual outbreak reports were contributed by the following individuals in the Investigation Section: *The Salmonella enteritidis* outbreak was contributed by Michele Nakata; the Foodborne Gastroenteritis associated with a company picnic was contributed by April Bogard, M.P.H.; the *Campylobacter jejuni* enteritis associated with a catered birthday party was submitted by Jed Sasaki, M.P.H.; the *Bordetella pertussis* outbreak in West Hawai'i was submitted by Chester Waki-da, Epidemiological Specialist, Hawai'i District Health Office; the Summary of

three confirmed outbreaks of Influenza A was contributed by Alice Jeong, M.P.H. In addition, the following contributed to the outbreak investigations conducted during the year; Lawrence Inouye, Ph.D., Trudi Nekomoto, M.P.H., Chaoquan Yin, M.P.H., and Jo Manea, Kaua'i District Health Office.

**Table 1. Summary Table of Communicable Disease Outbreaks, Hawai'i – 1999**

<b>DISEASE and STATUS of INVESTIGATION</b>	<b>MODE OF TRANSMISSION</b>	<b>Number of Outbreaks By County</b>	<b>Setting</b>	<b>No. of Cases<sup>1</sup></b>
Gastroenteritis – confirmed viral etiology (Norwalk-like Calicivirus)	Person-to-person	O'ahu – 1	Long Term Care Facility	19
<i>Campylobacter enteritis</i> - confirmed	Food-borne	O'ahu – 1	Catered party	33
<i>Salmonella enteritidis</i> – confirmed	Food-borne	O'ahu – 1	Community wide outbreak –Restaurant (same food item) / eggs from egg farm	Party A - 4 Party B - 5 School A Cluster- 52
Gastroenteritis – suspected (etiologic agent undetermined)	Food-borne	O'ahu – 2 Hawai'i – 1 Kauai'i – 1 Maui – 3	Restaurant Street vendor Restaurant Convenience food mart Golf course concession Tour group outings Leftover catered foods	55 4 12 2 3 32 13
Influenza A - Confirmed	Person-to-person	Lihue, Kaua'i – 1 O'ahu – 8	Long Term Care facility Hospital* Elementary school Nursing home Cruise ship Nursing home Nursing home Hospital (2 <sup>nd</sup> outbreak*) Nursing home	4 13 7 9 110 27 47 14 2
Influenza B – Confirmed	Person-to-person	O'ahu – 1	Nursing home	15
Scombroid Fish Poisoning	Food-borne	Hawai'i – 3 Kaua'i – 7 Maui – 1 O'ahu – 10 (21)		10 10 1 20 (41)
Ciguatera Fish Poisoning	Food-borne	Hawai'i - 3 Kauai'i – 7 Maui – 8 O'ahu – 5 (23)		5 14 Lanai 3; 15 6 (43)
Pertussis – confirmed	Person-to-person	Hawai'i – 1	Community	8
<b>TOTAL</b>		<b>No. of Outbreaks: 65</b>	Hawai'i - 8 Kaua'i- 16 Maui - 10 O'ahu - 31	<b>Cases: 574</b>

1. Cases are determined by laboratory confirmation, epidemiologic association, and/or outbreak case definition.

**Table 2. Food-borne Illness Investigations by DOH Epidemiology Branch During 1999**

<b>Category of Disease Investigation Initiated by Epidemiology Branch</b>	<b>TOTAL No. of Investigations HAWAII</b>	<b>TOTAL No. of Investigations KAUAI</b>	<b>TOTAL No. of Investigations MAUI (Molokai, Lanai)</b>	<b>TOTAL No. of Investigations OAHU</b>	<b>TOTAL ALL ISLANDS</b>
<b>Investigations (ALL Communicable Disease)</b>	88	41	83	385	597
<b>Food Poisoning Complaints (ALL)</b>	42	22	53	228	345
Ciguatera Fish Poisoning	3	7	8	5	23
Scombroid Fish Poisoning	3	7	1	10	21
Hallucinogenic Fish Poisoning	0	0	0	0	0
<b>Food Poisoning Complaints as percent of All Communicable Disease Investigations</b>	48%	54%	64%	59%	58%

Note: not all investigations lead to a food-borne illness conclusion

Table 3. Summary of Influenza Outbreaks, Hawai'i – 1999

County / Date of Event	Setting	Influenza	Type	Status	Cases
<b>OAHU</b>					
February 4, 1999	Hospital *	Influenza A	A/Sydney/05/97 (H3N2)	Confirmed	13
February 5, 1999	Elementary School	Influenza A	Not typed	Confirmed	7
March 1, 1999	Nursing Home	Influenza A	A/Sydney/05/97 (H3N2)	Confirmed	9
March 22, 1999	Nursing Home	Influenza B	B/Beijing/194/93-like	Confirmed	15
April 16, 1999	Cruise Ship	Influenza A	Not typed	Confirmed	110
July 4, 1999	Nursing Home	Influenza A	Not typed	Confirmed	27
August 10, 1999	Nursing Home	Influenza A	A/Sydney/05/97 (H3N2)	Confirmed	47
August 24, 1999	Hospital 2 <sup>nd</sup> outbreak *	Influenza A	Not typed	Confirmed	14
November 23, 1999	Nursing Home	Influenza A	Not typed	Confirmed	2
<b>KAUAI</b>					
December 26, 1999	Hospital Long Term Care	Influenza A	Not typed	Confirmed	4

Figure 1. *Salmonella enteritidis* isolates – Hawai'i, 1990-1999

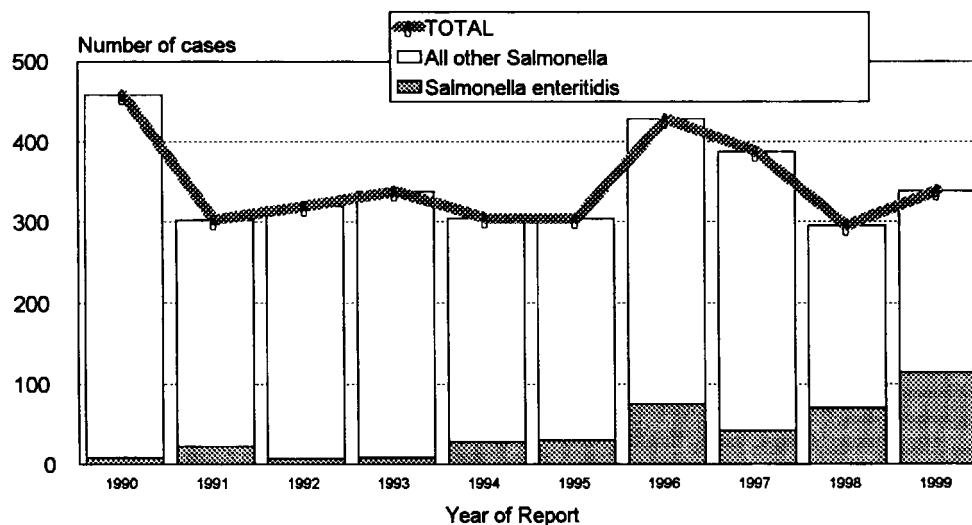


Figure 2. *Salmonella enteritidis* Outbreak Cases by Date of Onset and Cluster

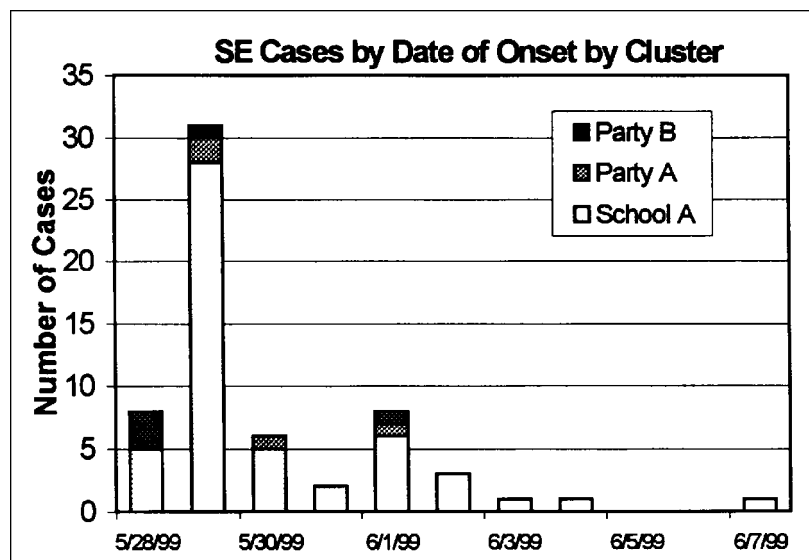




Figure 3. Pertussis by Onset-Date and Age Group – Hawai'i, 1999

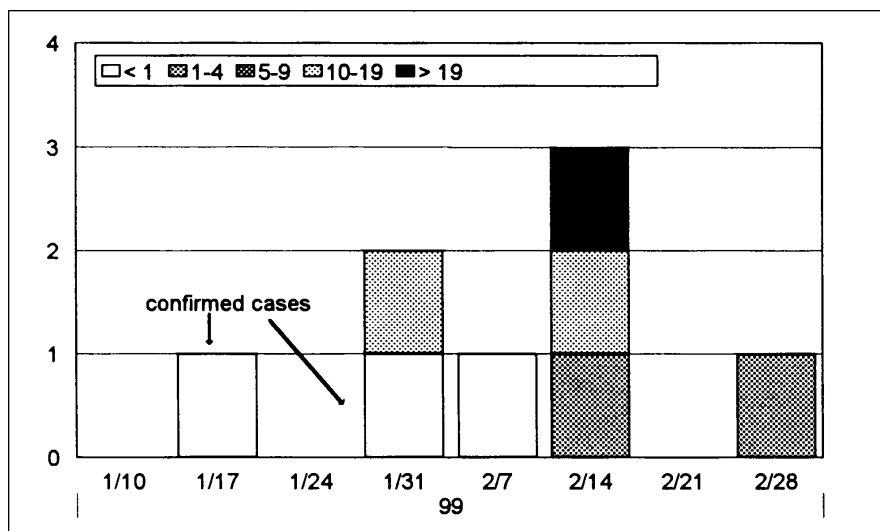


Figure 4. Other Viral Isolates, Hawai'i Calendar Year 1999

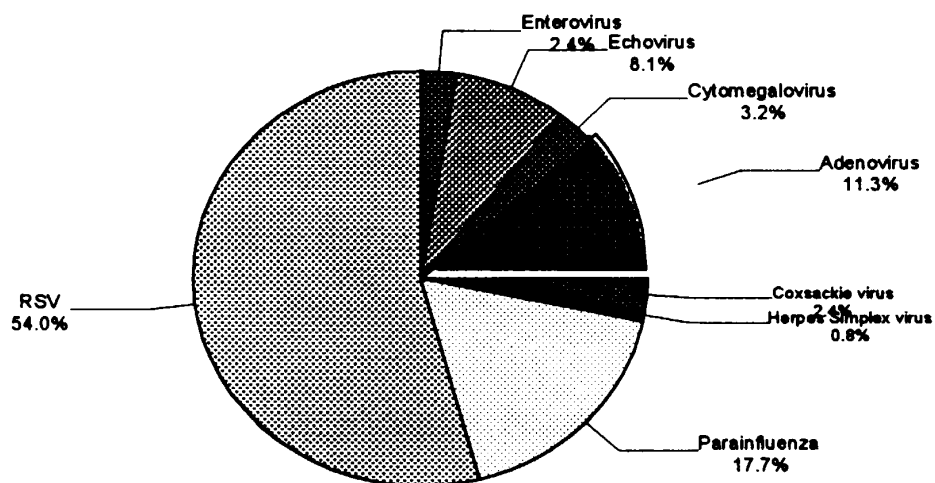
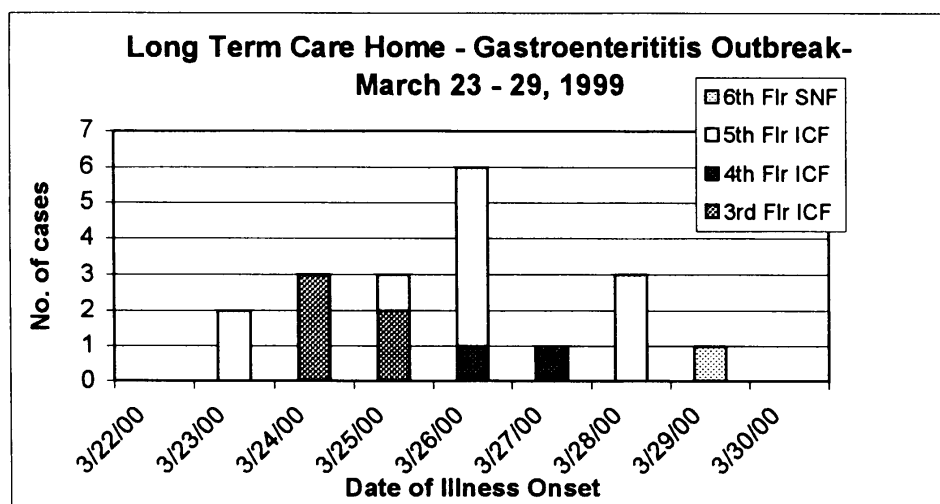


Figure 5. Long Term Care Home Gastroenteritis Epidemiology Curve by Date of Onset

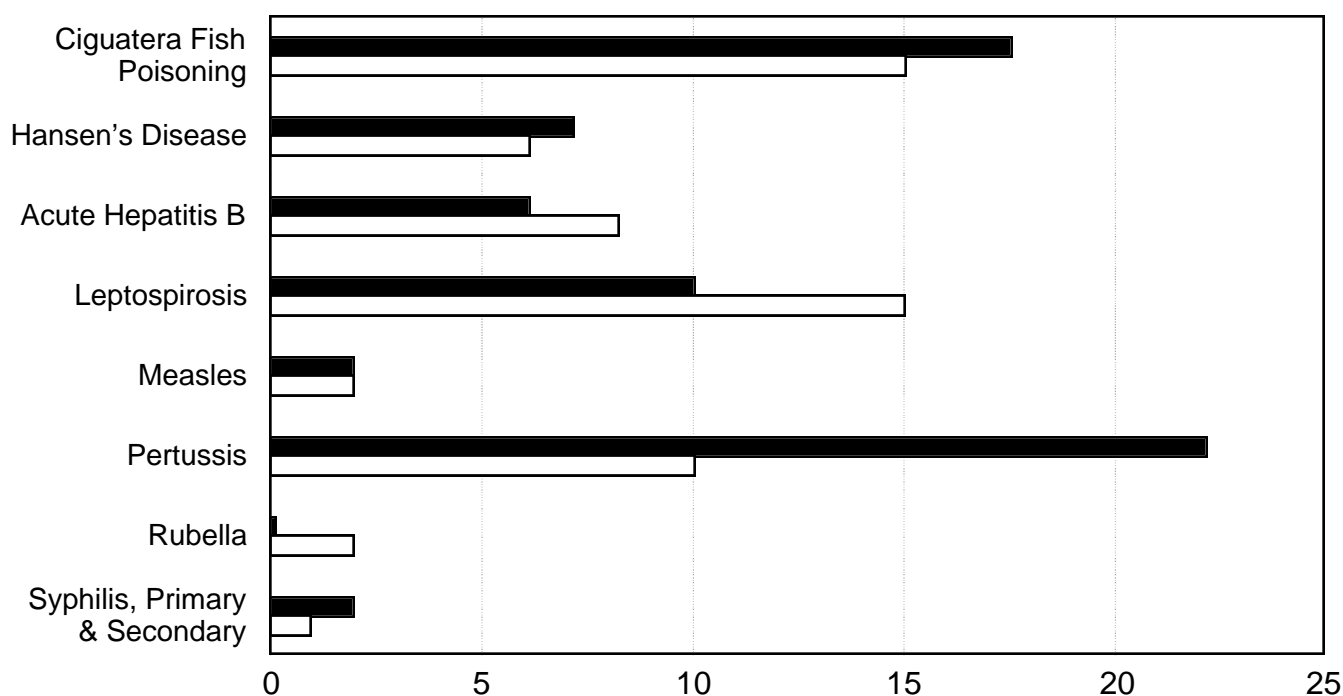
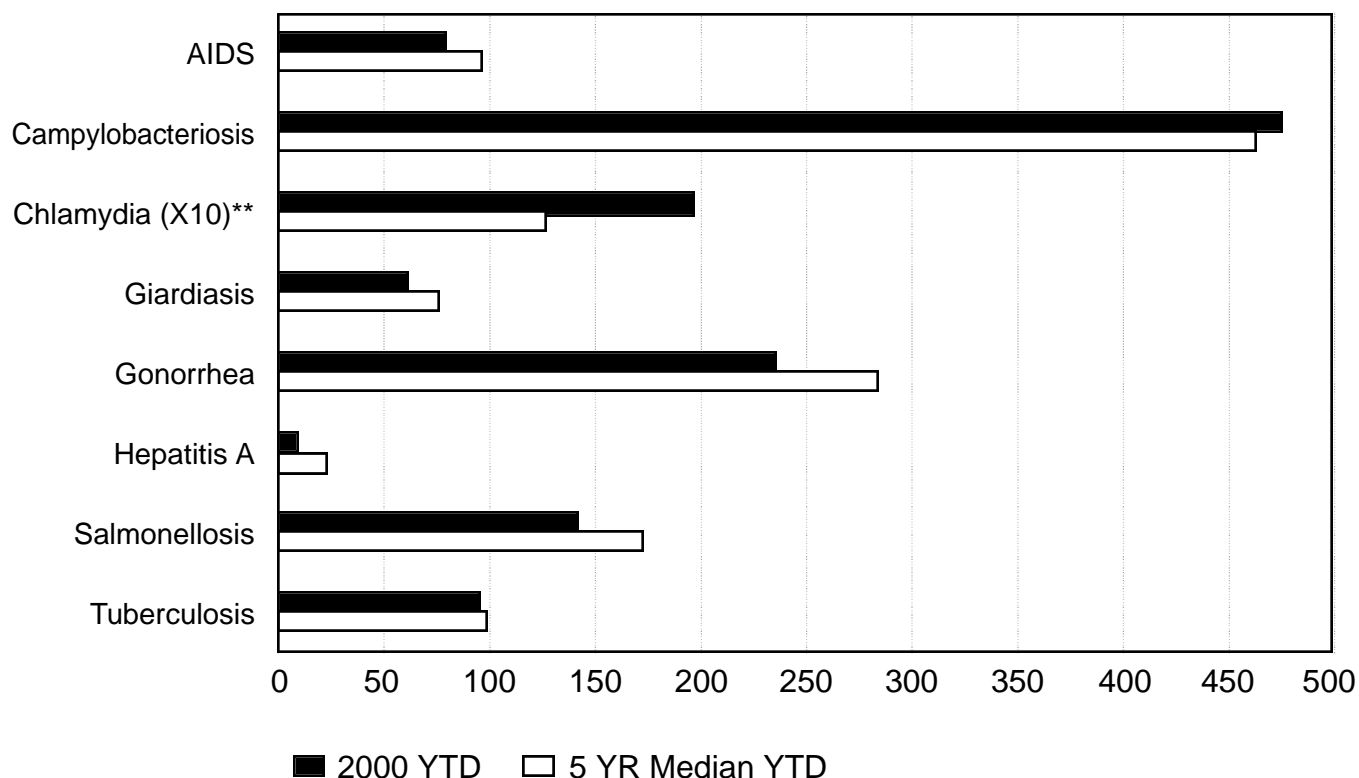




# Communicable Disease Surveillance

## Selected Diseases by Date of Report\*

Hawai'i, 2000 Year-to-date Through July



\* These data do not agree with tables using date of onset or date of diagnosis.

\*\*The number of cases graphed represent 10% of the total number reported.

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# Communicable Disease Report

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**July/August 2000**

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